

REMARKS

INTRODUCTION:

Claims 1-57 are pending and under consideration.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1, 35, 50 and 57 are rejected under 35 U.S.C. §102(b) as being fully anticipated by Jachimowicz et al. (U.S. Patent 5,224,198).

Independent claim 1 recites "at least one magnifying lens to magnify the at least one signal diffracted by at least one of the plurality of gratings." Thus, the magnified signal is a signal which has been diffracted by one of the gratings.

In contrast, the magnified signal in Jachimowicz has not been diffracted by the grating. The Examiner relies upon the second lens 25 of this reference as corresponding to the claimed magnifying lens, which is illustrated in FIG. 1A of the reference. FIG. 1A also illustrates a diffractive grating 28, however, the diffractive grating 28 is located downstream relative to the second lens 25 with respect to the direction of the light. Thus, the second lens 25 does not magnify any light which is diffracted by the diffractive grating 28.

Independent claim 1 also recites "a plurality of gratings to diffract the at least one signal." Thus, there is a plurality of gratings.

The Examiner relies upon diffraction grating 46 and diffractive grating 47, shown in FIG. 4 of the reference, as corresponding to these claimed features. However, it is noted that the embodiment shown in FIG. 4 of the reference does not include a magnifying lens. Thus, no single embodiment includes a plurality of gratings and a magnifying lens. Furthermore, it would not be possible to modify the embodiment of FIG. 4 to include both gratings 46, 47 and the second lens 25 of the embodiment of FIG. 1A. This is because the diffraction grating 46 of FIG. 4 replaces the second lens 25 of FIG. 1.

Independent claim 35 recites first and second gratings, and a magnifying lens to magnify the signal diffracted by the second grating. Thus, this reference is patentably distinguishable from Jachimowicz for at least the above reasons.

Furthermore, this claim recites that the second grating diffracts the signal "at the predetermined incidence angle at the first grating." Thus, the diffraction angle of the second grating is the same as the incidence angle at the first grating. It is respectfully submitted that the

cited reference does not disclose this feature. Instead, the incidence angle at the diffraction grating 46 is approximately 45 degrees relative to the plane of this element. However, the diffraction angle at the diffractive grating 47 is approximately perpendicular to this element. Thus, the diffractive grating 47 does not diffract the signal at the incidence angle at the diffraction grating 46, as claimed.

Independent claim 50 recites first and second gratings, and a magnifying lens to magnify the signal diffracted by the second grating. This claim further recites that the second grating diffracts the signal at the diffraction angle at the first grating. Independent claim 57 recites first and second gratings and a magnifying lens to magnify the at least one signal diffracted by the second grating.

Based on the above, withdrawal of the rejections is requested.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 2-6, 36-43 and 51-55 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jachimowicz et al.

The Examiner admits that the cited reference does not teach or suggest claimed arrangements of components within the device, in particular, arrangements of the claimed first and second gratings. Instead, the Examiner states “the office interprets the teaching of Jachimowicz et al. to disclose the individual components of the wearable display system and suggests various arrangements of the components (figs. 1A and 4-11).” Office Action, page 3. However, as discussed above, FIG. 1A of this reference does not disclose first and second gratings, and FIG. 4 does not disclose a magnifying lens. Furthermore, it is noted that FIGS. 5-11 do not disclose diffractive gratings, but instead disclose diffractive lenses (i.e., elements 75-78 in FIG. 7). Thus, the cited reference does not even disclose all of the individual components.

The Examiner also relies upon *In re Japikse*, 86 USPQ 70 (CCPA 1950), as standing for the proposition that rearranging parts of an invention involves only routine skill in the art. This reference is discussed in M.P.E.P. 2144.04. This section summarizes *In re Japikse* by saying “claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch *would not have modified the operation of the device.*” (emphasis added). Thus, a requirement for the holding of unpatentability was that rearranging the parts did not modify the operation of the device. However, the claimed arrangements of the diffractive gratings do modify the device

by removing chromatic aberration and resulting in a simpler manufacturing. Present Specification, page 2, paragraph [0007].

M.P.E.P. 2144.04 also requires that the prior art provide a motivation or reason for the worker in the art, without the benefit of the specification, to make the necessary changes in the references. *Ex parte Chicago Rawhide MFG. Co.*, 223 USPQ 351 (BPAI 1984). The Examiner's alleged motivation is to save space. However, the rearrangement of the parts does not necessarily affect the size of the apparatus, but instead affects the quality of the image and the ease of manufacture. Thus, the Examiner's motivation does not provide a motivation to rearrange the parts. Furthermore, the Examiner has not shown that the references teach that a rearrangement would result in a simpler manufacture or removing chromatic aberration.

Accordingly, withdrawal of the rejections is requested.

Claims 7, 9-18, 20-33, 44-48 and 56 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jachimowicz et al in view of David (U.S. Patent 6,577,411).

Independent claim 9 recites "a display panel at a center of the waveguide ... a first grating to diffract the signal output from the display panel ... in opposite directions of the waveguide." Thus, the first grating diffracts the signal in opposite directions. In contrast, David discloses a first light beam 48, which passes through a holographic plate 56 in a first direction and through a holographic element 60 in a first direction, and light 50 which passes through holographic element 60 in a first direction. The light 48, 50 which has passed through the holographic element 60 arrives at an eye 46. David, FIG. 4A-4C. Thus, this reference does not teach or suggest a grating to diffract a signal in opposite directions.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.


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If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Michael J. Badagliacca
Registration No. 39,099

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501